

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

Please be informed that the data shown in this PDF document is generated from our online catalog. Please find the complete data in the user documentation. Our general terms of use for downloads are valid.



PCB terminal block, nominal current: 13.5 A, rated voltage (III/2): 200 V, nominal cross section: 1.5 mm<sup>2</sup>, number of potentials: 2, number of rows: 1, number of positions per row: 2, product range: MKDS 1/..-HT, pitch: 3.5 mm, connection method: Screw connection with tension sleeve, screw head form: L Slotted, mounting: THR soldering / wave soldering, conductor/PCB connection direction: 0 °, color: black, Pin layout: Linear pinning, Solder pin [P]: 3.5 mm, number of solder pins per potential: 1, type of packaging: packed in cardboard. This article can be soldered in the reflow furnace together with SMD components.

## Your advantages

- Well-known connection principle allows worldwide use
- Low temperature rise, thanks to maximum contact force
- Allows connection of two conductors
- Extremely small design for the respective conductor cross section
- Designed for integration into the SMT soldering process

## Commercial data

Item number	1985807
Packing unit	360 pc
Minimum order quantity	360 pc
Sales key	AA12
Product key	AALGAB
Catalog page	Page 75 (C-1-2013)
GTIN	4017918929213
Weight per piece (including packing)	1.25 g
Weight per piece (excluding packing)	2.28 g
Customs tariff number	85369010
Country of origin	DE

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

## Technical data

### Product properties

Product type	Printed circuit board terminal
Product family	MKDS 1/...-HT
Product line	COMBICON Terminals S
Type	PC termination block
Number of positions	2
Pitch	3.5 mm
Number of connections	2
Number of rows	1
Number of potentials	2
Pin layout	Linear pinning
Solder pins per potential	1

### Data management status

Article revision	04
------------------	----

### Electrical properties

Nominal current $I_N$	13.5 A
Nominal voltage $U_N$	200 V
Rated voltage (III/3)	63 V
Rated surge voltage (III/3)	2.5 kV
Rated voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV
Rated voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV

### Connection data

#### Connection technology

Type	PC termination block
Nominal cross section	1.5 mm <sup>2</sup>

#### Conductor connection

Connection method	Screw connection with tension sleeve
Conductor cross section rigid	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section flexible	0.14 mm <sup>2</sup> ... 1.5 mm <sup>2</sup>
Conductor cross section AWG	26 ... 16
Conductor cross section flexible, with ferrule without plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
Conductor cross section, flexible, with ferrule, with plastic sleeve	0.25 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
2 conductors with same cross section, solid	0.14 mm <sup>2</sup> ... 0.5 mm <sup>2</sup>
2 conductors with same cross section, flexible	0.14 mm <sup>2</sup> ... 0.34 mm <sup>2</sup>
Stripping length	5 mm

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

Drive form screw head	Slotted (L)
Tightening torque	0.22 Nm ... 0.25 Nm

## Mounting

Mounting type	THR soldering / wave soldering
Pin layout	Linear pinning

## Material specifications

### Material data - contact

Note	WEEE/RoHS-compliant, free of whiskers according to IEC 60068-2-82/JEDEC JESD 201
Contact material	Cu alloy
Surface characteristics	Tin-plated
Metal surface terminal point (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface terminal point (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)
Metal surface soldering area (top layer)	Tin (5 - 7 $\mu\text{m}$ Sn)
Metal surface soldering area (middle layer)	Nickel (2 - 3 $\mu\text{m}$ Ni)

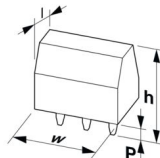
### Material data - housing

Color (Housing)	black (9005)
Insulating material	PA
Insulating material group	IIIa
CTI according to IEC 60112	250 - 399
Flammability rating according to UL 94	V0

## Notes

Note on application	For safe conductor connection, always adhere to a defined tightening torque. Particularly in the case of PCB terminal blocks with two or three positions, the individual solder pin for each contact point cannot compensate for this. That is why the terminal blocks must be supported during conductor connection (held with one hand, support on the housing).
---------------------	--

## Dimensions

Dimensional drawing	
Pitch	3.5 mm
Width [w]	7.5 mm
Height [h]	12 mm
Length [l]	7.3 mm
Installed height	8.5 mm
Solder pin length [P]	3.5 mm

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

Pin dimensions	0.5 x 0.9 mm
----------------	--------------

## PCB design

Pin spacing	3.5 mm
Hole diameter	1.1 mm

## Electrical tests

### Air clearances and creepage distances |

Specification	IEC 60947-1:2007-06 + A1:2010-12 + A2:2014-09
Insulating material group	IIIa
Comparative tracking index (IEC 60112)	CTI 250 - 399
Rated insulation voltage (III/3)	63 V
Rated surge voltage (III/3)	2.5 kV
minimum clearance value - non-homogenous field (III/3)	1.5 mm
minimum creepage distance (III/3)	2 mm
Rated insulation voltage (III/2)	200 V
Rated surge voltage (III/2)	2.5 kV
minimum clearance value - non-homogenous field (III/2)	1.5 mm
minimum creepage distance (III/2)	2 mm
Rated insulation voltage (II/2)	200 V
Rated surge voltage (II/2)	2.5 kV
minimum clearance value - non-homogenous field (II/2)	1.5 mm
minimum creepage distance (II/2)	2 mm

## Environmental and real-life conditions

### Ambient conditions

Ambient temperature (operation)	-40 °C ... 100 °C (Depending on the current carrying capacity/derating curve)
Ambient temperature (storage/transport)	-40 °C ... 70 °C
Relative humidity (storage/transport)	30 % ... 70 %
Ambient temperature (assembly)	-5 °C ... 100 °C

## Packaging specifications

Type of packaging	packed in cardboard
Outer packaging type	Dry bag

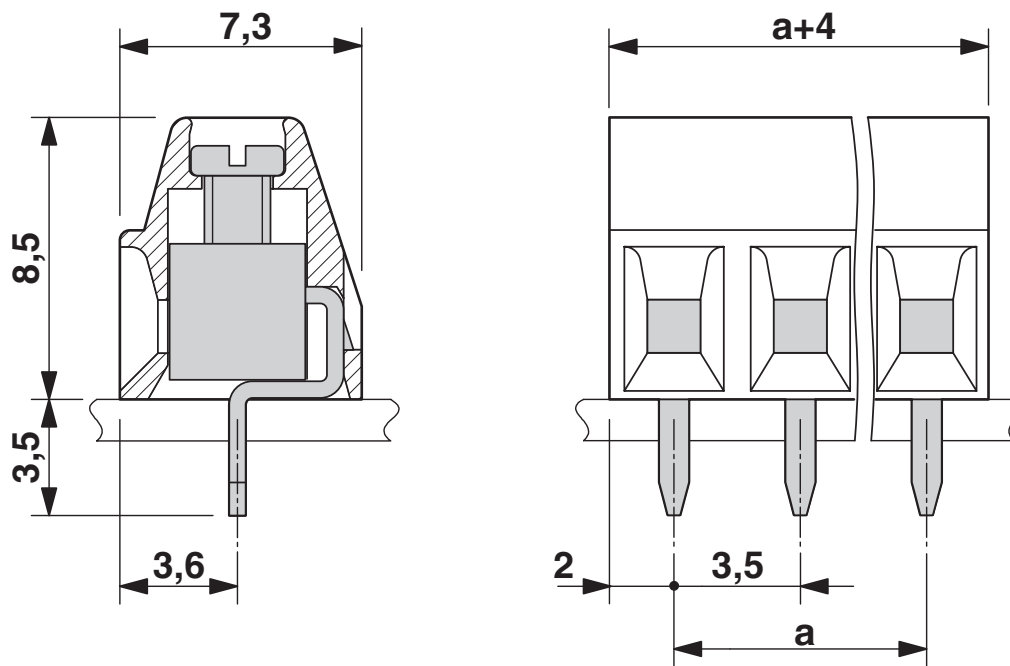
# MKDS 1/ 2-3,5 HT BK - PCB terminal block

1985807

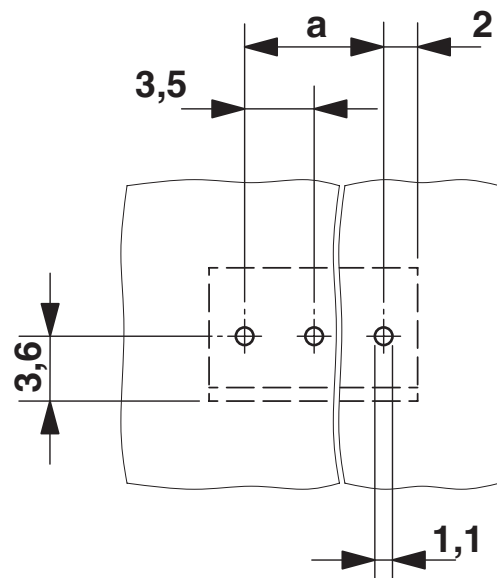
<https://www.phoenixcontact.com/us/products/1985807>

## Drawings

Dimensional drawing



Drilling plan/solder pad geometry



# MKDS 1/ 2-3,5 HT BK - PCB terminal block





1985807

<https://www.phoenixcontact.com/us/products/1985807>

## Approvals

To download certificates, visit the product detail page: <https://www.phoenixcontact.com/us/products/1985807>

 <b>cULus Recognized</b> Approval ID: E60425-19770427				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
Use group B				
Only flexible conductors	300 V	13.5 A	30 - 16	-
Standard	300 V	10 A	30 - 16	-
Use group D				
Only flexible conductors	150 V	13.5 A	30 - 16	-
Standard	300 V	10 A	30 - 16	-

 <b>VDE Zeichengenehmigung</b> Approval ID: 40055394				
	Nominal voltage $U_N$	Nominal current $I_N$	Cross section AWG	Cross section $\text{mm}^2$
	200 V	17.5 A	-	0.2 - 1.5

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

## Classifications

### ECLASS

ECLASS-11.0	27460101
ECLASS-12.0	27460101
ECLASS-13.0	27460101

### ETIM

ETIM 9.0	EC002643
----------	----------

### UNSPSC

UNSPSC 21.0	39121400
-------------	----------

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

## Environmental product compliance

EU RoHS	
Fulfills EU RoHS substance requirements	Yes, No exemptions
China RoHS	
Environment friendly use period (EFUP)	EFUP-E
	No hazardous substances above the limits
EU REACH SVHC	
REACH candidate substance (CAS No.)	No substance above 0.1 wt%

# MKDS 1/ 2-3,5 HT BK - PCB terminal block



1985807

<https://www.phoenixcontact.com/us/products/1985807>

## Accessories

### SZS 0,4X2,5 VDE - Screwdriver

1205037

<https://www.phoenixcontact.com/us/products/1205037>



Screwdriver, slot-headed, VDE insulated, size: 0.4 x 2.5 x 80 mm, 2-component grip, with non-slip grip

### SK 3,5/2,8:FORTL.ZAHLEN - Marker card

0804073

<https://www.phoenixcontact.com/us/products/0804073>



Marker card, Sheet, white, labeled, horizontal: consecutive numbers 1 ... 10, 11 ... 20, etc. up to 91 ... 99, mounting type: adhesive, for terminal block width: 3.5 mm, lettering field size: 3.5 x 2.8 mm, Number of individual labels: 14

Phoenix Contact 2024 © - all rights reserved

<https://www.phoenixcontact.com>

Phoenix Contact USA  
586 Fulling Mill Road  
Middletown, PA 17057, United States  
(+717) 944-1300  
[info@phoenixcon.com](mailto:info@phoenixcon.com)